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September 17, 2003

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Group 1652  
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# OF PAGES (incl. cover): 8

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Re: U.S. Serial No. 10/014,502, filed December 14, 2001  
Entitled "ISOLATED HUMAN PROTEASE PROTEINS, NUCLEIC ACID  
MOLECULES ENCODING HUMAN PROTEASE PROTEINS, AND USES  
THEREOF"  
Atty. Docket No.: CL001058DIV

A Supplementary Preliminary Amendment (Restriction Election) in the above-identified application follows. No fee is due for this filing.

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of: Jane YE et al.

Serial No.: 10/014,502

Filed: December 14, 2001

For: ISOLATED HUMAN PROTEASE  
PROTEINS, NUCLEIC ACID MOLECULES  
ENCODING HUMAN PROTEASE PROTEINS,  
AND USES THEREOF

Art Unit: 1652

Examiner: C. Patterson

Atty. Docket: CL001058DIV

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**RESPONSE TO RESTRICTION AND PRELIMINARY AMENDMENT**

Honorable Commissioner of  
Patents and Trademarks  
Washington, D.C. 20231

Sir:

This is in response to an office communication from Examiner Patterson mailed on September 12, 2003, in which a Notice of Non-Compliant Amendment was issued for the above referenced application.

By way of response, Applicants hereby re-elect claim group I, claims 1-2 and 20-21, directed to polypeptides, for examination and have canceled claims corresponding to the non-elected groups II-X.

**In the Claims:**

Claim 1. (Currently Amended) An isolated polypeptide having consisting of an amino acid sequence selected ~~from the group~~ consisting of:

- (a) ~~an amino acid sequence shown in SEQ ID NO:2;~~
- (b) ~~an amino acid sequence of an allelic variant of an amino acid sequence shown in SEQ ID NO:2, wherein said allelic variant is encoded by a nucleic acid molecule that hybridizes under stringent conditions to the opposite strand of a nucleic acid molecule shown in SEQ ID NOS:1 or 3;~~
- (c) ~~an amino acid sequence of an ortholog of an amino acid sequence shown in SEQ ID NO:2, wherein said ortholog is encoded by a nucleic acid molecule that hybridizes under stringent conditions to the opposite strand of a nucleic acid molecule shown in SEQ ID NOS:1 or 3; and~~
- (d) ~~a fragment of an amino acid sequence shown in SEQ ID NO:2, wherein said fragment comprises at least 10 contiguous amino acids.~~

Claim 2. (Currently Amended) An isolated peptide comprising protease having an amino acid sequence comprising selected ~~from the group~~ consisting of:

- (a) ~~an amino acid sequence shown in SEQ ID NO:2;~~
- (b) ~~an amino acid sequence of an allelic variant of an amino acid sequence shown in SEQ ID NO:2, wherein said allelic variant is encoded by a nucleic acid molecule that hybridizes under stringent conditions to the opposite strand of a nucleic acid molecule shown in SEQ ID NOS:1 or 3;~~
- (c) ~~an amino acid sequence of an ortholog of an amino acid sequence shown in SEQ ID NO:2, wherein said ortholog is encoded by a nucleic acid molecule that hybridizes under stringent conditions to the opposite strand of a nucleic acid molecule shown in SEQ ID NOS:1 or 3; and~~
- (d) ~~a fragment of an amino acid sequence shown in SEQ ID NO:2, wherein said fragment comprises at least 10 contiguous amino acids.~~

**Claim 3. (Withdrawn)** An isolated antibody that selectively binds to a peptide of claim 2.

**Claim 4. (withdrawn)** An isolated nucleic acid molecule consisting of a nucleotide sequence selected from the group consisting of:

(a) a nucleotide sequence that encodes an amino acid sequence shown in SEQ ID NO:2;

(b) a nucleotide sequence that encodes of an allelic variant of an amino acid sequence shown in SEQ ID NO:2, wherein said nucleotide sequence hybridizes under stringent conditions to the opposite strand of a nucleic acid molecule shown in SEQ ID NOS:1 or 3;

(c) a nucleotide sequence that encodes an ortholog of an amino acid sequence shown in SEQ ID NO:2, wherein said nucleotide sequence hybridizes under stringent conditions to the opposite strand of a nucleic acid molecule shown in SEQ ID NOS:1 or 3;

(d) a nucleotide sequence that encodes a fragment of an amino acid sequence shown in SEQ ID NO:2, wherein said fragment comprises at least 10 contiguous amino acids; and

(e) a nucleotide sequence that is the complement of a nucleotide sequence of (a)-(d).

**Claim 5. (withdrawn)** An isolated nucleic acid molecule comprising a nucleotide sequence selected from the group consisting of:

(a) a nucleotide sequence that encodes an amino acid sequence shown in SEQ ID NO:2;

(b) a nucleotide sequence that encodes of an allelic variant of an amino acid sequence shown in SEQ ID NO:2, wherein said nucleotide sequence hybridizes under stringent conditions to the opposite strand of a nucleic acid molecule shown in SEQ ID NOS:1 or 3;

(c) a nucleotide sequence that encodes an ortholog of an amino acid sequence shown in SEQ ID NO:2, wherein said nucleotide sequence hybridizes under stringent conditions to the opposite strand of a nucleic acid molecule shown in SEQ ID NOS:1 or 3;

(d) a nucleotide sequence that encodes a fragment of an amino acid sequence shown in SEQ ID NO:2, wherein said fragment comprises at least 10 contiguous amino acids; and

(e) a nucleotide sequence that is the complement of a nucleotide sequence of (a)-(d).

Claim 6. (withdrawn) A gene chip comprising a nucleic acid molecule of claim 5.

Claim 7. (withdrawn) A transgenic non-human animal comprising a nucleic acid molecule of claim 5.

Claim 8. (withdrawn) A nucleic acid vector comprising a nucleic acid molecule of claim 5.

Claim 9. (withdrawn) A host cell containing the vector of claim 8.

Claim 10. (withdrawn) A method for producing any of the peptides of claim 1 comprising introducing a nucleotide sequence encoding any of the amino acid sequences in (a)-(d) into a host cell, and culturing the host cell under conditions in which the peptides are expressed from the nucleotide sequence.

Claim 11. (withdrawn) A method for producing any of the peptides of claim 2 comprising introducing a nucleotide sequence encoding any of the amino acid sequences in (a)-(d) into a host cell, and culturing the host cell under conditions in which the peptides are expressed from the nucleotide sequence.

**Claim 12. (withdrawn)** A method for detecting the presence of any of the peptides of claim 2 in a sample, said method comprising contacting said sample with a detection agent that specifically allows detection of the presence of the peptide in the sample and then detecting the presence of the peptide.

**Claim 13. (withdrawn)** A method for detecting the presence of a nucleic acid molecule of claim 5 in a sample, said method comprising contacting the sample with an oligonucleotide that hybridizes to said nucleic acid molecule under stringent conditions and determining whether the oligonucleotide binds to said nucleic acid molecule in the sample.

**Claim 14. (withdrawn)** A method for identifying a modulator of a peptide of claim 2, said method comprising contacting said peptide with an agent and determining if said agent has modulated the function or activity of said peptide.

**Claim 15. (withdrawn)** The method of claim 14, wherein said agent is administered to a host cell comprising an expression vector that expresses said peptide.

**Claim 16. (withdrawn)** A method for identifying an agent that binds to any of the peptides of claim 2, said method comprising contacting the peptide with an agent and assaying the contacted mixture to determine whether a complex is formed with the agent bound to the peptide.

**Claim 17. (withdrawn)** A pharmaceutical composition comprising an agent identified by the method of claim 16 and a pharmaceutically acceptable carrier therefor.

**Claim 18. (withdrawn)** A method for treating a disease or condition mediated by a human protease protein, said method comprising administering to a patient a pharmaceutically effective amount of an agent identified by the method of claim 16.

**Claim 19. (withdrawn)** A method for identifying a modulator of the expression of a peptide of claim 2, said method comprising contacting a cell expressing said peptide with an agent, and determining if said agent has modulated the expression of said peptide.

**Claims 20-21. (Canceled)**

**Claim 22. (withdrawn)** An isolated nucleic acid molecule encoding a human protease peptide, said nucleic acid molecule sharing at least 80 percent homology with a nucleic acid molecule shown in SEQ ID NOS:1 or 3.

**Claim 23. (withdrawn)** A nucleic acid molecule according to claim 22 that shares at least 90 percent homology with a nucleic acid molecule shown in SEQ ID NOS:1 or 3.

**Claim 24. (New)** A composition comprising the polypeptide of claim 1 and a carrier.

**Claim 25. (New)** A composition comprising the protease of claim 2 and a carrier.

**Claim 26. (New)** An isolated protease consisting of an amino acid sequence having at least 99% sequence identity to SEQ ID NO:2.

**Claim 27. (New)** A composition comprising the protease of claim 26 and a carrier.

**REMARKS**

By way of the above amendments, claims 3-23 have been canceled as being redundant or being directed to non-elected subject matter; claims 1 and 2 have been amended; and claims 24-27 have been added. As such, claims 1, 2, and 24-27 are presently pending.

Support for the amendments to the claims and the newly added claims can be found at least in the old claims and in Figures 1-3. The amendments to the claims and the newly added claims add no new subject matter and their entry is respectfully requested.

Applicants respectfully assert that the claims are in condition for examination on the merits.

Respectfully submitted,

CELERA GENOMICS

By: 

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Date: September 17, 2003

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